

ABSTRACT

An adaptive bias circuit is provided for an amplifier module including a RF power amplifier for amplifying an input signal to generate an output signal, wherein the bias circuit receives the input signal to adjust a driving current to control a quiescent current of the RF power amplifier. The adaptive bias circuit includes means for providing the driving current to the bias circuit and means for drawing a bypass current from the providing means to reduce the driving current in response to the input signal, wherein the quiescent current is reduced when the driving current is reduced and the bypass current increases when the input signal is reduced.